

REMARKS

Claims 1-27 are pending in the present Application. Claims 17 and 18 have been canceled, Claims 1, 3, 16, 19, and 20 have been amended, and Claims 4, 6, 10-12, 14, 15, and 21-27 have been withdrawn, leaving Claims 1-3, 5, 7-9, 13, and 16-20 for consideration upon entry of the present Amendment.

Claim 1 has been amended to include the limitations of Claim 18. Accordingly, Claim 18 has been canceled herewith. In addition, Claim 1 has been amended to correct inadvertent typographical errors affecting the definiteness of the claim, as discussed below.

Claim 3 has been amended to more properly recite the claim.

Claims 16, 19, and 20 have been amended to correct certain inadvertent typographical errors.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Information Disclosure Statement

An information disclosure statement responsive to the Examiner's requirement for compliance with 37 CFR § 1.98(b) is being prepared for submission, and will be filed separately from the present Amendment and Response to permit timely entry of the present Amendment and Response under a two-month extension.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-3, 5, 7-9, 13, and 16-20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner has noted that antecedent basis for certain elements is missing. Applicants apologize herewith and have, as noted in the amended Claim 1 above, amended the claim to provide proper antecedent basis, the omission of which was inadvertent typographical error. Accordingly, Claim 1 and its dependent claims should now fully provide antecedent basis. Withdrawal of the rejection

is respectfully requested.

Obviousness-type Nonstatutory Double Patenting

Claims 1, 3, 5, 16, and 20 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 2, 6, and 7 of U.S. Patent No. 6,235,182 (the ‘182 patent); Claims 1 and 5-8 of U.S. Patent No. 5,705,219 (the ‘219 patent); and Claim 1 and 4 of U.S. Patent No. 5,916,485 (“Besenhard”). Applicants traverse the rejection, and note that the limitations of Claim 18, now included in Claim 1 as amended herewith, are not disclosed or taught by the foregoing references. Accordingly, neither the ‘182, ‘219, or Besenhard patents disclose or teach all elements of the amended Claim 1, and therefore Applicants respectfully request the Examiner withdraw the rejection and allow the claims.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 3, and 5 stand rejected under 35 U.S.C. § 102(a), as allegedly anticipated by applicant’s admitted state of the prior art (“AASPA”). In addition, Claims 1-3, 5, 7-9, 13, 17, 17, and 20 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Besenhard. Applicants respectfully traverse these rejections.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

The method of the present invention is characterized by modifying a substrate-induced coagulation (SIC) process by combining the SIC process with heat treatment to provide a surface modified material. The method provides core-shell materials having distinct and different core and shell phases, having a concentration gradient of one or more dopant or substitute elements from the surface of the bulk material through to the center of the bulk material.

The present invention thus provides a method for producing a surface modified cathode material for lithium batteries prepared by adopting the modified substrate-induced coagulation process set forth in amended Claim 1.

Amended Claim 1 further claims the use of the surface modified material as a cathode material with modified surface layers for Li batteries, Li-ion batteries, Li polymer batteries, and Li-ion polymer batteries, where an original cathode material is coated with fine-particulate solid particles. Regarding the rejection under AASPA, the foregoing which is the content of original Claim 18, now canceled, is not disclosed as prior art in the Specification, and therefore Claim 1 as amended, and its dependent claims, cannot be anticipated under AASPA. Withdrawal of the rejection and allowance of the claims is therefore respectfully requested.

Similarly, Besenhard discloses a substrate-induced coagulation process and a highly conducting composition prepared by implanting very small amounts of conductive material in the substrate induced coagulation process. Col. 2, lines 7-11 and 27-34. However, Besenhard does not disclose a method for producing a surface-modified cathode material, nor a surface modified material that can be used as a cathode material for lithium batteries, as now claimed in amended Claim 1. Thus, Besenhard fails to disclose all elements of the instant claims, and therefore does not anticipate the instant claims. Withdrawal of the rejection and allowance of the claims is therefore respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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